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(71)Applicant : CANON INC

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(54) ELECTROPHOTOGRAPHIC CARRIER, TWO-COMPONENT DEVELOPER AND IMAGE FORMING METHOD

(57)Abstract:

PURPOSE: To provide a carrier capable of giving a high quality image having high image quality, high definition and high image density over a long period of time, hardly lowering image density or causing blurring even when a color original having a large image area is continuously copied, ensuring rapid start up of triboelectric charge between a toner and the carrier and having low dependency of triboelectric charge on the environment.

CONSTITUTION: This electrophotographic carrier has 15-45 μ m 50% average particle diameter (D50) and contains 1-20% carrier particles having $\leq 22\mu$ m, $\leq 3\%$ carrier particles having $\leq 16\mu$ m, 2-15% carrier particles having $\geq 62\mu$ m and $\leq 2\%$ carrier particles having $\geq 88\mu$ m. The specific surface area S1 of this carrier measured by an air permeation method and the specific surface area S2 calculated by the equation satisfy $1.2 \leq S1/S2 \leq 2.0$.

$$S_2 = \frac{8}{\mu \cdot D_{50}} \times 10^4$$

μ: 粒子の比重

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(71)Applicant : TDK CORP

(22)Date of filing : 13.02.1982

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(54) MAGNETIC CARRIER PARTICLES

(57)Abstract:

PURPOSE: To provide magnetic carrier particles used for magnetic brush development, capable of forming an image superior in resolution, minute accuracy, black solid uniformity, gradation, etc., by using ferrite particles having spinel structure and average particle diameter smaller than a specified value.

CONSTITUTION: Necessary metal oxides, such as FeO or Fe₂O₃ are mixed in water into slurry, granulated, dried, heat treated, crushed, and classified to obtain ferrite particles having average particle diameter not exceeding 30 μ m and spinel structure. An especially preferable ferrite is ferrite or magnetite consisting of ≤ 60 mol% MO (M is Ni, Mn, Mg, Zn, Cu, or Co) in terms of divalent metal oxide, and ≥ 40 mol% Fe₂O₃ in terms of trivalent metal oxide, and spinel structure. These ferrite particles are used for magnetic carrier particles, and combined with a toner to prepare a developer.

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